

DCP OPERATING COMPANY, L.P.  
**MOBILE BAY GAS TREATING & PROCESSING FACILITY**  
CODEN, MOBILE COUNTY, AL  
Facility No.: 503-8085

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MAJOR SOURCE OPERATING PERMIT  
THIRD TITLE V RENEWAL  
DRAFT MAY 26, 2017

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## **STATEMENT OF BASIS**

The proposed Title V Major Source Operating Permit (MSOP) third renewal is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

DCP Midstream, L.P. was issued the existing MSOP on January 9, 2012 for its Mobile Bay Gas Treating and Processing Facility (Mobile Bay Plant) located at 5300B Highway 188, Coden, Mobile County, AL. The permit had an expiration date of January 14, 2017. The facility requested a name change from DCP Midstream, L.P. to DCP Operating Company, LP on March 27, 2017.

Per ADEM Rule 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of the permit. The renewal application was received on July 12, 2016. Additional information and revisions were received on September 7, 2016 and April 3, 2017. The proposed MSOP would expire on ???

## **PROCESS DESCRIPTION**

Mobile Bay Plant uses a cryogenic turbo expander NGL recovery process which cools a dried inlet gas stream to separate the natural gas liquids (NGL) from a high methane “residue” gas product. The NGLs are then treated to remove impurities prior to being delivered for sales.

Natural gas from nearby gas treating facilities and from producing fields located offshore enter the facility through the high-pressure separator where wet, natural gas is separated from the liquids (i.e. condensate and water). The gas stream exiting the inlet high-pressure separator is routed to a molecular sieve dehydration unit to remove the water fractions prior to entering the turbo expander process. Drying the gas prevents the formation of hydrates and ice in the cryogenic process.

In the cryogenic process, the gas is routed first to a high-speed turbo expander where the dry, high-pressure inlet gas passes over an expander wheel which removes energy from the gas and lowers the gas pressure resulting in a pressure drop and cooling of the gas stream. From the expander, the cooled gas is routed to the cold separator followed by the demethanizer tower. A mixed NGL product exits the demethanizer from the bottom and dry, high methane content or “residue” gas exits from the top of the tower. Residue gas is compressed by three electric driven compressors for delivery to the high pressure sales pipeline.

From the demethanizer, the NGL is routed to the product treating or amine system where contaminants, primarily  $H_2S$ , carbonyl sulfide (COS), and  $CO_2$ , is removed prior to sales. The NGL is routed to the amine treating unit where amine reacts with  $CO_2$ ,  $H_2S$ , and COS forming an intermediate compound in solution with the amine (“rich amine”). The amine is regenerated in the amine reboiler and the still vent stream or off gases are routed to the thermal oxidizer or the emergency Acid Gas Flare where it is combusted before being released to atmosphere. The amine flash tank overhead gas stream is sent to the Process Flare. Treated NGL product leaves the amine treating unit and is then metered and sent to a sales pipeline.

The condensate/water stream exiting the inlet separator is flashed to a lower pressure in a three phase, (gas, condensate and water) separator prior to entering the condensate stabilizer. The condensate stabilizer lowers the vapor pressure of the condensate stream with vapors captured by a VRU and compressed to the inlet. The condensate leaving the stabilizer is then sent to storage while awaiting removal by truck.

Heat requirements for the NGL treating system is provided by waste heat recovery units in the exhaust of ten (10) power generation engines using heat transfer oil and augmented by a 21.726 MMBTU/hr Hot Oil Heater. The ten (10) power generation engines are 5,800 brake horsepower (BHP) gas-fired, 4-stroke, lean-burn engines.

The Plant includes the operation of a continuous pilot emergency Acid Gas Flare and a continuous pilot Process Flare.

The significant sources of air pollutants at this facility along with applicable requirements, expected emissions, and proposed monitoring are noted in the following pages.

## **NOTABLE CHANGES**

During this renewal, several notable changes will be made to the permit in order to demonstrate compliance with new and/or modified federal and state requirements:

- On March 27, 2017, DCP notified the Department of its name change from DCP Midstream, L.P. to DCP Operating Company, LP.
- The boiler section will be re-written due to changes made to 40 CFR 63 Subpart DDDDD [Boiler MACT] since the last permit renewal.
- Previously the facility was allowed to comply with the requirements of 40 CFR 63 Subpart HH [NESHAP HH] by complying with 40 CFR 60 Subpart KKK [NSPS KKK]. However, after the promulgation of 40 CFR 60 Subpart OOOO, the facility was no longer allowed to comply with NSPS KKK for NESHAP HH. As a result, a section for NESHAP HH will be added to the permit for the condensate unit which is the only unit subject to NESHAP HH.
- The following changes have been requested for the generator engines:
  - Remove the requirement to test the fuel gas burned in the generator engines for its sulfur content. The engines will burn natural gas which would contain little to no sulfur and the engines do not have an emission limit for sulfur; therefore, there is no reason for the facility to be required to analyze the sulfur content of the fuel gas for these engines.
  - Change the periodic testing frequency for the generator engines from every six months to annually since the facility has conducted the required number of subsequent testing as required by the permit.
- Change the monitoring frequency requirement for periodic sampling of the NGL units sulfur content entering and leaving the amine unit contact tower from once a month to annually. The number of subsequent sampling have been made; therefore, the frequency can now be modified to annually as allowed in the current permit.
- Update the flare table in the Appendix D. The current permit has the requirements listed for a flare that is not subject to the smokeless requirements found under §60.18 and §63.11. Both facility flares are required to be smokeless.
- Remove reference to 40 CFR 63 Subpart ZZZZ [RICE MACT] from the generator section of the existing permit. Four stroke lean burn (4SLB) engines with an engine rating greater than 500 HP, located at a major source of HAPs, have no requirements under this subpart; therefore, all references should be removed.
- The requirement to measure the pressure drop across the catalyst bed is currently listed in the permit as Compliance Assurance Monitoring (CAM) to demonstrate compliance with the RICE MACT for the generator engines. As stated above the generator engines are not subject to the RICE MACT; however, on June 16, 2017 the facility requested to keep the monitoring requirements in the permit. Instead of the monitoring being CAM it will now be listed as periodic monitoring in the renewal permit.

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## FACILITY-WIDE EMISSION REQUIREMENTS

Applicable facility-wide regulations are found in the following table:

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
<b>Each Stationary Source</b>		Opacity	No more than one 6 min avg. > 20% AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(a)  Rule 335-3-4-.01(1)(b)
<b>Petroleum Production Facility</b>				
		H <sub>2</sub> S	Burn gas with > 0.10 grains of H <sub>2</sub> S/scf of gas; 20 ppbv offsite	Rule 335-3-5-.03(1) Rule 335-3-5-.03(2)
		SO <sub>2</sub>	No Limit If available sulfur <5 LTD	Rule 335-3-5-.03(3)
<b>Onshore Natural Gas Processing Plants</b>				
<b>Affected Sources:</b> Compressor, except reciprocating) in VOC service or in wet gas service  The group of all equipment: (each pump, pressure relief device, open-ended valve or line, flange or other connector in VOC or in wet gas service), except compressors, within a process unit Each glycol dehydration unit Liquefied natural gas unit		Fugitive VOCs	LDAR work practices	§60.632 40 CFR 60 Subpart KKK
<b>Process Units:</b> Inlet gather & separation Gas dehydration unit NGL extraction unit NGL treating unit Closed vent system & flare				
<b>Oil and Natural Gas Production Facilities</b>				
<b>Affected Sources:</b> Located at a natural gas processing plant and operating in VHAP service for 300 hours per calendar year or more  Ancillary equipment: (pumps, pressure relief devices, sampling connection systems, open-ended valves, or lines, valves, flanges, or other connectors)		HAPs	LDAR work practices	§63.760(a)(1),(2),(3) §63.760(b)(1)(iii)&(vi) §63.764(a)(3) §63.769(a)(1)&(2) 40 CFR 63 Subpart HH

Each Compressor, except reciprocating compressors  
in wet gas service

**Process Units:**

Condensate stabilization unit

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The plant's applicability to the state and federal regulations will be discussed in the following sections.

**STATE REGULATIONS**

**Applicability:**

ADEM Admin. Code R. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

Several of the emission sources located at this facility are subject to the requirements of this subpart. The specific monitoring and recordkeeping requirements shall be discussed in the individual sections.

**Applicability:**

ADEM Admin. Code R. 335-3-5-.03(1),(2), & (3) "*Petroleum Production*"

This regulation applies to the control of sulfur compound emissions from each petroleum production facility that handles gas or refinery gas that contains more than 0.10 grains of hydrogen sulfide (H<sub>2</sub>S) per standard cubic foot (scf) of gas. The Mobile Bay Plant would handle sour gas that contains 0.10 grain of H<sub>2</sub>S/scf of gas or more; therefore, the facility would be subject to the applicable requirements of this regulation. The thermal oxidizer and flares would be used to comply with this regulation and maintain the offsite H<sub>2</sub>S concentration at less than 20 parts per billion (averaged over a thirty minute period) beyond the plant property limits. Requirements for this regulation will be discussed in the sections for the thermal oxidizer and the flares.

Mobile County is located in a Category I County and the facility process less than 2 long tons per day (LT/D) of H<sub>2</sub>S. SO<sub>2</sub> emissions have no limit if the available sulfur processed at the plant is less than 5 LT/D. However, the facility has taken limits in order to be a minor source with respect to PSD regulations; therefore, facility-wide SO<sub>2</sub> emissions from the plant are not allowed to exceed 250 TPY.

**Applicability:**

ADEM Admin. Code R. 335-3-6 "*Control of Organic Emissions*"

These regulations are applicable to emission sources with greater than 100 Tons per year (TPY) of VOC emissions. The plant is subject to the requirements of 40 CFR 60 Subpart KKK [NSPS KKK] for control of VOC emissions, therefore, compliance with NSPS KKK should be used to demonstrate compliance with this regulation.

**Applicability:**

ADEM Admin. Code R. 335-3-14-.04 "*Prevention of Significant Deterioration (PSD) Permitting*"

The Mobile Bay Plant is a 250 ton per year source with respect to PSD. The facility has elected to take limits on several of its emission sources in order to stay below the major source threshold. Each of the limits will be discussed in detail for affected sources in the applicable sections.

**Applicability:**

ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*" (MSOP)

The Mobile Bay Plant has been deemed a major source of criteria pollutants (have the potential to emit 100 tons per year (TPY) or more), a major source of hazardous air pollutants (HAPs) emissions (have the potential to emit 10 TPY or more for a single HAPs or 25 TPY or more for a combination of HAPs) and major for greenhouse gases (GHG) emissions. Therefore, the plant would be subject to the requirements of this regulation.

**Applicability:**

40 CFR 60 Subpart A, "*General Provisions*"

Provided that affected sources located at the plant are subject to one of the applicable subparts found under this part, the facility shall comply with this regulation as specified in that subpart.

## **FEDERAL REGULATIONS**

### **NEW SOURCE PERFORMANCE STANDARDS (NSPS)**

**Applicability:**

40 CFR 60 Subpart KKK, "*Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants*" [NSPS KKK]

The Mobile Bay Plant is subject to the requirements of this subpart for affected sources that were constructed, reconstructed, and modified after January 20, 1984 and on or before August 23, 2011. Process units subject to this subpart are summarized in the table above. Except as specified in §60.633, the emissions standards specified in §60.632 of this subpart shall be complied with. Compliance with this subpart is demonstrated through the review of records and reports as specified in §60.635, review of performance test results, and inspections using the methods and procedures specified in §60.485. Semi-annual leak detection and repair (LDAR) reports as required by §60.636 are submitted to the Department to demonstrate that the monitoring requirements under this subpart are being met.

Flares used to demonstrate compliance with this subpart are required to comply with §60.18. Requirements for the flare will be discussed in the flare section of this document.

**Applicability:**

40 CFR 60 Subpart OOOO, "*Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution*" [NSPS Quad O]

This regulation was promulgated on August 16, 2012 to control volatile organic compounds (VOC) and sulfur dioxide (SO<sub>2</sub>) emission from affected facilities that commence construction, modification, or reconstruction after August 23, 2011, and on or before September 18, 2015 [§60.5360]. This facility is not equipped with any affected facilities under this subpart.

**Applicability:**

40 CFR 60 Subpart OOOOa, "*Standards of Performance for Crude Oil and Natural Gas Facilities*"

This regulation was promulgated on June 3, 2016 to control greenhouse gases (GHG), volatile organic compounds (VOC) and sulfur dioxide (SO<sub>2</sub>) emission from affected facilities that commence construction, modification, or reconstruction after September 18, 2015. This facility is not equipped with any affected facilities under this subpart during this renewal.

**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)**

**Applicability:**

40 CFR 63, Subpart A, "*General Provisions*"

Provided that affected sources located at the plant are subject to one of the applicable subparts found under this part, the facility shall comply with this subpart as specified in that subpart. This subpart shall be complied with as specified in Table 2 of 40 CFR 63, Subpart HH [§63.764(a)].

**Applicability:**

40 CFR 63, Subpart HH, "*National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities*"

The Mobile Bay Plant is a major source of HAPs with respect to this subpart. Affected facilities under this subpart include each glycol dehydration unit, each storage vessel with the potential for flash emissions, and the group of all ancillary equipment and compressors intended to operate in volatile hazardous air pollutant (VHAP) service.

The plant is not equipped with a glycol dehydration unit as defined under this subpart. Instead a molecular sieve (zeolites) dehydration unit is used to remove water from the inlet gas stream. The actual annual average hydrocarbon liquid throughput for the condensate storage vessels is less than 79,500 liters/day; therefore, the storage vessels do not have a potential for flash emissions and would not be subject to this subpart.

According to facility, the ancillary equipment and compressors at the plant are in volatile hazardous air pollutant (VHAP) service because the percent VHAP content can be reasonably

expected to exceed 10.0 percent by weight. Therefore, the equipment leak standards specified in §63.769 would be applicable.

#### EMISSION STANDARDS

Equipment leak standards under this subpart are applicable to ancillary equipment (pumps, pressure relief devices, sampling connection systems, open-ended valves, or lines, valves, flanges, or other connectors) and compressors, located at a natural gas processing plant and operating in VHAP service for 300 hours per calendar year or more [§63.764(a)(3), §63.769(a), §63.761].

The general standards found in §61.242-1 shall be complied with [§61.242-1]

The facility is required to comply with 40 CFR 61 Subpart V, §61.241 through §61.247, except as specified in §63.769(c)(1)-(8) [§63.769(c)]

- Pumps shall comply with §61.242-2, except that pumps in VHAP service located at a non-fractionating plant that does not have the design capacity to process 283,000 standard cubic meters per day or more of field gas is exempt from the routine monitoring specified §61.242-2(a)(1) [§61.242-2, §63.769(c)(5)]
- Compressors shall comply with §61.242-3, except that reciprocating compressors in wet gas service are exempt from the compressor control requirements [§61.242-3, §63.769(c)(7)]
- Pressure relief devices (PRD) in gas/vapor service shall comply with §61.242-4, except as specified in §63.769(c) and as provided below [§61.242-4, §63.769(c)(1),(2),(3), and (5)]:

Each PRD in gas/vapor service shall be monitored quarterly and within 5 days after each pressure release to detect leaks unless the conditions specified in §63.769(c)(1)(i) or (ii) occur [§63.769(c)(1)]

An instrument reading of 10,000 parts per million or greater measured indicates that a leak is detected [§63.769(c)(2)]

When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, unless a delay in repair of equipment is granted under §61.242-10 [§63.769(c)(3)]

Each PRD in gas/vapor service located at a non-fractionating plant that does not have the design capacity to process 283,000 standard cubic meters per day or more of field gas is exempt from the routine monitoring specified in §63.769(c)(1) through (3) as shown above [§63.769(c)(5)]

- Sampling connection systems are exempt from having to comply with §61.242-5 [§63.769(c)(4)]
- Open-ended valves or lines shall comply with §61.242-6 [§61.242-6]

- Valves shall comply with §61.242-7, except as follows [63.769(c), (c)(5), §61.242-7, §61.243-1 or §61.243-2]:

For valves subject to §61.242-7(b) or §61.243-1 a leak is detected if an instrument reading of 500 ppm or greater is measured [§63.769(c)]

A leak shall be repaired in accordance with §61.242-7(d) for sources constructed on or before August 23, 2011[§63.769(c)]

Valves in gas/vapor and light liquid service located at a non-fractionating plant that does not have the design capacity to process 283,000 standard cubic meters per day or more of field gas is exempt from the routine monitoring specified in §61.242-7(a) [§63.769(c)(5)]

Valves in VHAP service may elect to comply with the alternative standards found in §61.243-1 for an allowable percentage of valves leaking or §61.243-2 for a skip period leak detection and repair after notifying the Department [§61.243-1 or §61.243-2]

- Pressure relief devices in liquid service and connectors shall comply with §61.242-8 [§61.242-8]
- Delay of repair shall comply with §61.242-10 [§61.242-10]
- Closed-vent systems and control devices shall comply with §61.242-11, except that flares used to comply with this subpart shall comply with the requirements of §63.11(b) [§61.242-11, §63.769(c)(8),§63.771(d)(1)(iii)]

An alternative means of emission limitations as provided in §61.244 may be requested for affected sources subject to the requirements of §61.242-2, §61.242-3, §61.242-6, §61.242-7, §61.242-8 or §61.242-11 [§61.242-1(c)(1)]

If the facility is required to repair a leak within a specified time after the leak has been detected, it is a violation of this standard to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard. However, if the repairs are unsuccessful, and a leak is detected, the owner or operator shall take further action as required by the applicable provisions of this subpart [§63.764(i)].

At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions [§63.764(j)].

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Compliance with this subpart will be determined by review of records, review of performance test results, and inspection using the methods and procedures specified in §61.245 [§61.242-1(b)]. Monitoring as required by §61.242, §61.243, and §61.244 shall be conducted using Method 21 of Appendix A of 40 CFR part 60 [§61.245(b)(1)]. Flares are exempt from the requirement to conduct performance tests and design analyses under MACT HH

[§63.771(e)(1)(i)]. Flares used to demonstrate compliance with MACT HH will be addressed in the Flare section of this document.

In order to demonstrate that ancillary equipment or compressors are not in VHAP or in wet gas service, the facility must comply with the test methods and procedures specified in §63.772(a).

#### EMISSIONS MONITORING

The applicable monitoring requirements specified in §61.242-1 through §60.482-11, §61.243, and §61.244 shall be complied with as specified in §61.245(b)(1)-(5) [§61.245(b)]. A flare used as a control device to comply with this subpart shall be monitored as specified in §61.245(e)(2).

#### RECORDKEEPING AND REPORTING REQUIREMENTS

The recordkeeping requirements found in §61.246 and §63.774(b)(1) through (11) and the reporting requirements specified in §61.247 and §63.775 shall be met in order to comply with MACT HH. A semi-annual Leak Detection and Repair (LDAR) report is required to be submitted to the Department within 30 day of the reporting period [§61.247(b), §63.774(b), §63.775(e), §63.775(g)(2)]. Provided a flare is used to comply with this subpart, the records specified in §63.774(e) in shall be maintained.

#### **Applicability:**

40 CFR 63, Subpart EEEE, “*National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*” [OLD MACT]

This subpart applies to Organic HAPs emitted from OLD operations at major sources of HAPs emissions; however, it does not include activities and equipment, including product loading racks, used to process, store, or transfer organic liquids from facilities covered under MACT HH [§63.2334(c)(1)].

#### **Applicability:**

#### **40 CFR 64, “COMPLIANCE ASSURANCE MONITORING” (CAM)**

This subpart is applicable to an emission source provided the source meets all of the following criteria: it is subject to an emission limit or standard, it uses a control device to achieve compliance with the emissions limit or standard, and it has pre-controlled emissions from a regulated air pollutants that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source [40 CFR §64.2(a)]. Applicability to this subpart will be discussed in the individual sections for each emission source.

### **FACILITY-WIDE EMISSIONS**

Facility wide expected emissions for the Mobile Bay are given below. The emissions were obtained from the facility’s renewal application and revisions submitted on April 3, 2017.

FACILITY WIDE EMISSIONS (TPY)						
<u>PM<sub>2.5</sub>/PM<sub>10</sub></u>	<u>SO<sub>2</sub></u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>VOC</u>	<u>Total HAPs</u>	<u>GHG</u>
10.85	124.76	208.26	217.34	200.14	32.87	231,781.11

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## HEATER REQUIREMENTS

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(H-1)	21.726 MMBtu/Hour, Natural Gas-Fired, Hot Oil Heater	PM	0.356 Lbs/ MMBTU of heat input	Rule 335-3-4-.03(1)
		SO <sub>2</sub>	1.8 Lbs/MMBTU of heat input	Rule 335-3-5-.01(1)(a)
			And	
			Burned natural gas as fuel	§60.41c 40 CFR 60 Subpart Dc
		HAPs	Work Practice Standard	§63.7485, §63.7490(a)(2), (b), §63.7500(a)(1), 40 CFR 63, Subpart DDDDD
		Opacity	No more than one 6 min avg. > 20%	Rule 335-3-4-.01(1)(a)
			AND	
			No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)

The heater's applicability to the state and federal regulations will be discussed in the following section.

### STATE REGULATIONS

#### **Applicability:**

ADEM Admin. Code R. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

The heater would be subject to the requirements of these regulations.

#### EMISSION STANDARDS

ADEM Admin. Code R. 335-3-4-.01(1) (a) states that except for one 6-minute period during any 60-minute periods, stationary emission sources shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.

ADEM Admin. Code R. 335-3-4-.01(1) (b) states that at no time shall a stationary emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a six minute average.

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Method 9 or Method 22 found in 40 CFR 60, Appendix A would be used to demonstrate compliance with the opacity standards. When Method 22 is used to determine the duration of emissions, the method has to be conducted by an individual who is familiar with the procedures. When Method 9 is used to determine opacity, it has to be conducted by an individual who is

certified to use this procedure. Visual inspections and visible emissions observations are both required to be conducted during daylight hours.

#### EMISSIONS MONITORING

Provided that visible emissions are observed from the heater in excess of the opacity standards, a visible emission observation shall be conducted.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of each occurrence when a visible emissions observation was conducted shall be recorded and maintained. A deviation should be reported to the Department within 48 hours or 2 working days when a visible emissions event occurs.

#### **Applicability:**

ADEM Admin. Code R. 335-3-4-.03(1), "*Fuel Burning Equipment*" for Control of Particulate Emissions

The heater would be subject to this regulation since the facility is located in Mobile County which is a Class II County under this regulation.

#### EMISSION STANDARDS

Particulate matter (PM) emissions from the heater shall not exceed 7.74 Lbs/hr, the allowable determined using the following equation:

$$E = [1.38] * [H^{0.44}]$$

where, E= Emissions (lb/MMBtu) and H= Heat Input (MMBtu/hr)

The PM allowable for the heater should not be expected to be exceeded because natural gas would be burned in the heater.

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

If testing is required by the Department, particulate matter (PM) emission shall be determined in accordance with Method 5 of 40 CFR 60, Appendix A.

#### EMISSIONS MONITORING

Since the fuel gas burned in the heater would be natural gas there would not be a need for emission monitoring. PM emissions from natural gas fired boiler should not be significant enough to warrant monitoring.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of the hours of operation shall be maintained and the heater's heat input should be calculated in order to determine PM emissions.

**Applicability:**

ADEM Admin. Code R. 335-3-5-.01(1)(a), "*Fuel Combustion*" for Control of Sulfur Compound Emissions

The heater would be subject to this regulation since the facility is located in Mobile County which is a Category I County under this regulation.

EMISSION STANDARDS

SO<sub>2</sub> emissions from fuel burning equipment located in a Category I county is limited to 1.8 pounds per million BTU of heat input (lb/MMBtu of heat input). The allowable emissions under this regulation would be 39.11 Lbs/hr. Because natural gas would be burned in each of the heater, its allowable is not expected to be exceeded.

COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

To demonstrate compliance with the SO<sub>2</sub> emission limits, the facility would be required to test the heater's fuel gas for its heat content and hydrogen sulfide (H<sub>2</sub>S) concentration. The Btu content should be analyzed using ASTM Analysis Method D1826-77 or equivalent method. The H<sub>2</sub>S concentration should be analyzed using the Tutwiler procedures found in §60.648, the chromatographic analysis procedures found in ASTM E-260, the stain tube procedures found in GPA 2377-8, or those provided by the stain tube manufacture.

EMISSIONS MONITORING

The fuel gas shall be tested for its heat content and H<sub>2</sub>S concentration no less than once each six months.

RECORDKEEPING AND REPORTING REQUIREMENTS

Records of the following should be maintained for the heater: fuel heat content (Btu/scf), H<sub>2</sub>S content (Mol%), operating hours, and fuel gas consumption (Mscf/Month). Deviations from permit requirements shall be included in the periodic monitoring report (PMR) which is required to cover a semi-annual period and to be submitted within 30 days of the reporting period.

**Applicability:**

ADEM Admin. Code R. 335-3-14-.04 "*Prevention of Significant Deterioration (PSD) Permitting*"

The facility did not conduct a project at the plant that required a PSD review for the heater; therefore, there are no requirements under this regulation for the heater.

**Applicability:**

ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*" (MSOP)

The heater would be subject to the requirements of this regulation since it is located at a major source facility. To comply with the requirements of this regulation the facility is required to monitor and record the hours of operation and fuel gas consumption from the heater.

## FEDERAL REGULATIONS

### NEW SOURCE PERFORMANCE STANDARDS (NSPS)

#### Applicability:

40 CFR 60 Subpart A, "*General Provisions*"

Provided that affected sources located at the plant are subject to one of the applicable subparts found under this part, the facility shall comply with this subpart as specified in the applicable subpart.

#### Applicability:

40 CFR 60 Subpart Dc, "*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*"

Since the heater was constructed after June 9, 1989 and its maximum design heat input capacity is greater than or equal than 10 MMBtu/hr but less than 100 MMBtu/hr it would be subject to the requirements of this subpart. Natural gas-fired units are only subject to the requirement to maintain a record of the amount of fuel burned during each calendar month for a period of two years following the date of such record [60.48c(g)(2), (i)].

### NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

#### Applicability:

40 CFR 63 Subpart A, "*General Provisions*"

Provided that affected sources located at the plant are subject to one of the applicable subparts found under this part, the facility shall comply with this subpart as specified in the applicable subpart. To comply with 40 CFR 63 Subpart DDDDD, the applicable general provisions as specified in Table 10 of that subpart shall be complied with [§63.7565].

#### Applicability:

40 CFR 63 Subpart DDDDD, "*National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*" [Boiler MACT]

The heater would be a subject to the requirements of this subpart, because the Mobile Bay Plant is a major source of HAPs and the heater would be classified as a new affected source because it was constructed after the June 4, 2010 effective date for this subpart [§63.7490(a)(2),(b)]. The compliance date for new sources was April 1, 2013 or upon startup, whichever is later; therefore, the heater should already be in compliance with this subpart [§63.7495(a)].

#### EMISSION STANDARDS

The heater must be designed to burn gas 1 fuel such as natural gas, refinery gas and/or other gas 1 fuels [§63.7499(l), §63.7575]. Therefore, it is not subject to an emission limits under this subpart. However, it must comply with the work practice standards found in Table 3

[§63.7500(a)(1), Table 3, No. 3]. A new affected source which has a heat input capacity of 10 MMBtu/hr or greater, but is not equipped with a continuous oxygen trim system is required to comply with the requirements specified in Table 3, No. 3 of this subpart. A tune-up meeting the requirements in §63.7540 would be required to be completed annually [Table 3, No. 3].

The heater must be operated and maintained, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions [§63.7500(a)(3)].

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Initial and subsequent tune-ups for the heater shall comply with the procedures specified in §63.7540(a)(10)(i)-(vi) [§63.7510(g), §63.7515(d), §63.7540(a)(10)]. The initial tune-up for the heater was conducted December 14-16, 2015.

#### EMISSIONS MONITORING

Subsequent tune-ups shall be conducted on the heater annually [§Table 3, No. 3]. The tune-ups must be conducted no more than 13 months after the previous tune-up [§63.7515(d)]. Provided that a unit was not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup [§63.7540(a)(13)].

#### NOTIFICATIONS

Initial notifications specified in §63.7545(a) shall be submitted by the dates specified. For units which startup prior to January 31, 2013 the initial notification was required not later than 120 days after January 31, 2013 [§63.7545(a), (b)]. A Notice of compliance status (NOCS) containing the information specified in §63.7545(e)(1) and (8) was required to be submitted within 60 days of January 31, 2016. The NOCS was submitted to the Department on February 13, 2014.

If an alternative fuel is to be used in the process heater during periods of natural gas curtailment or supply interruption a notification of alternative fuel use must be submitted within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification shall include the information specified in §63.7545(f)(1) through (5) [§63.7545(f)].

#### RECORDKEEPING AND REPORTING REQUIREMENTS

The following records must be maintained for the process heater:

- A copy of each notification and report to comply with this subpart according to §63.10(b)(2)(xiv) [§63.7555(a)(1)]
- Records of compliance demonstrations as required by §63.10(b)(2)(vii) [§63.7555(a)(2)]
- If an alternative fuel is used in the process heater, a record of the total hours per calendar year that the alternative fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies must be maintained [§63.7555(h)]
- A record of burner inspections shall be maintained for units with delayed tune-ups [§63.7550(c)(5)(xiv)].

Records must be kept for a period of 5 years following each occurrence and in a form suitable and readily available for expeditious review according to §63.10(b)(1) [§63.7560(a), (b)]. Each records must be kept onsite, or they must be accessible from onsite (ie through computer network), for at least 2 years after the date of each occurrence. The record may be kept off site for the remaining 3 years.

An annual compliance report that meets the following requirements must be submitted for the process heater [§63.7550(b)(1)-(4), Table 9]:

- The first compliance report must cover the period beginning January 31, 2016 (the compliance date) and ending December 31 within one year after the compliance date. The report must be postmarked or submitted no later than January 31.
- Each subsequent compliance report must cover the annual reporting period from January 1 to December 31 and the report must be postmarked or submitted no later than January 31.
- Each compliance report shall include the requirements specified in §63.7550(c)(5)(i) through (iii), (xiv) , and (xvii) [§63.7550(c)(1)].
- The reports must be submitted electronically to the EPA via CEDRI except as allowed and a copy of the report must be submitted to the Department for tracking purposes [§63.7550(h)(3)].

**Applicability:**

40 CFR 63 Subpart JJJJJJ, “*National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*”

This subpart is applicable to boiler and process heaters located at an area source of HAPs. The heater is located at a major source of HAPs; therefore, it would not be subject to this subpart.

**Applicability:**

**40 CFR 64, “COMPLIANCE ASSURANCE MONITORING” (CAM)**

The heater would not be subject to the requirements of CAM since they do not use a control device to comply with an emission standard and its pre-controlled emissions from a regulated air pollutants are not equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

**HEATER EMISSIONS**

HEATER EXPECTED EMISSIONS (TPY)						
PM <sub>2.5/10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	TOTAL HAP	CO <sub>2e</sub>
0.71	0.06	9.33	7.84	0.51	0.01	11,143.03

## **EMERGENCY ENGINE REQUIREMENTS**

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(P-903A)	265 BHP, Detroit Diesel, Fire Water Pump Engine	HAPs	Work or Management Practices	§63.6585(b)
(P-903B)	265 BHP, Detroit Diesel, Fire Water Pump Engine			§63.6590(a)(1)(ii) §63.6602
Emergency Generator	380 BHP, Cummins LTA-10G1, Diesel Blackstart, Emergency Electrical Generator Engine	Opacity	No more than one 6 min avg. > 20%	Rule 335-3-4-.01(1)(a)
			AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)

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The emergency engines' applicability to state and federal regulations will be discussed in the following section.

### **STATE REGULATIONS**

#### **Applicability:**

ADEM Admin. Code R. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

The emergency engines would be subject to the requirements of these regulations.

#### EMISSION STANDARDS

ADEM Admin. Code R. 335-3-4-.01(1) (a) states that except for one 6-minute period during any 60-minute periods, stationary emission sources shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.

ADEM Admin. Code R. 335-3-4-.01(1) (b) states that at no time shall a stationary emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a six minute average.

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Method 9 or Method 22 found in 40 CFR 60, Appendix A would be used to demonstrate compliance with the opacity standards. When Method 22 is used to determine the duration of emissions, the method has to be conducted by an individual who is familiar with the procedures. When Method 9 is used to determine opacity, it has to be conducted by an individual who is certified to use this procedure. Visual inspections and visible emissions observations are both required to be conducted during daylight hours.

#### EMISSIONS MONITORING

Provided that visible emissions are observed from the emergency engines in excess of the opacity standards, a visible emission observation shall be conducted.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of each occurrence when a visible emissions observation was conducted should be recorded and maintained. A deviation should be reported to the Department within 48 hours or 2 working days when a visible emissions event occurs.

#### **Applicability:**

ADEM Admin. Code R. 335-3-14-.04 "*Prevention of Significant Deterioration (PSD) Permitting*"

When the emergency engines were initially placed into service they were not required to undergo a PSD review since emergency generators were not subject to any state or federal regulations. Due to the limited use (fire suppression or protection, startup of a turbine, and backup generation) of these emergency engines and the engines' size, there is no reason to believe that the engines' emissions would have exceeded caused the facility-wide emissions from the plant to exceed the 250 TPY major source threshold for criteria pollutants under this regulation. However, the facility has proposed an operational hourly limit of 2,190 hour of operation per year per engine in order to address this regulation and maintain emissions from these sources below the major source threshold. Records of each engine's operating hours for non-emergency use shall be recorded and maintained for review.

#### **Applicability:**

ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*" (MSOP)

The emergency engines would be subject to the requirements of this regulation since they are located at a facility that is a major source.

### **FEDERAL REGULATIONS**

#### **NEW SOURCE PERFORMANCE STANDARDS (NSPS)**

#### **Applicability:**

40 CFR 60 Subpart A, "*General Provisions*"

Provided that the engines are subject to one of the applicable subparts found under this part, the facility shall comply with this subpart as specified in the applicable subpart.

#### **Applicability:**

40 CFR 60 Subpart IIII, "*Standards of Performance for Compression Ignition Internal Combustion Engines*" [NSPS IIII]

This regulation is applicable to compression ignition (CI) (aka diesel) stationary engines that commenced construction after July 11, 2005 and that meets the applicable manufactured date. Based on the permit application, each of the engines at the plant were constructed (1998 and 1999 listed in the permit application) prior to the effective date for this subpart and neither has been modified or reconstructed since the effective date. Therefore, there are no requirements for these engines under this subpart.



## NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)

### Applicability:

40 CFR 63, Subpart A, “General Provisions”

The emergency engines are subject to 40 CFR 63 Subpart ZZZZ; therefore, the applicable General Provisions of Subpart A found in Table of 8 of subpart ZZZZ should be met.

### Applicability:

40 CFR 63 Subpart ZZZZ, “National Emission Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE)” [RICE MACT]

Since the emergency generator engines were constructed at the plant prior to June 12, 2006, the engines would be existing sources located at a major source of HAPs under this subpart. There are no operating limitations, fuel requirements or performance test requirements for these units under this subpart; however, there are work or management practices that must be complied with.

### EMISSIONS STANDARDS

The following work or management practices must be met for emergency stationary CI engines, except during periods of startup or during emergency (Table 2c, No. 1):

- Change oil and filter every 500 hours of operation or annually, whichever comes first (you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement)
- Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary (or the facility can elect to petition the Administrator for an alternative work practice pursuant to §63.6(g))

Each engine, including associated air pollution control equipment and monitoring equipment, must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. Also the engine must be operated and maintained according to the manufacturer's emission-related written instructions or a maintenance plan must be developed. The maintenance plan must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions [Table 6 No. 9]

An existing emergency stationary RICE located at an major source of HAP emissions must be equipped with a non-resettable hour meter if one is not already installed [§63.6625(f)].

During periods of startup, the facility must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply [§63.6625(h)].

In order for engines to be considered an emergency stationary RICE, the units must be operated as specified in §63.6640 f(1) through (4). Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year is prohibited. If the engines are not operated according to the requirements in §63.6640 f(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. The RICE MACT does not limit emergency operation of the engine as specified in §63.6640 f(1); however, the facility has elected to limit the operational hours for the engines to 2,190 hours per year.

#### RECORDKEEPING AND REPORTING

Maintenance records, records of hours of operation recorded via the non-resettable hour meter, hours of operation for emergency, non-emergency, and demand response operations, and records of the notification of an emergency situation shall be maintained for each of the engines.

No reports are required under this subpart for emergency engines as long as the engines do not meet the requirements found in §63.6650(h). However, for Title V purposes a semi-annual periodic monitoring report (PMR) would be required to report deviations during each monitoring period.

#### **40 CFR 64, “COMPLIANCE ASSURANCE MONITORING (CAM)”**

The emergency engines would not be subject to the requirements of CAM since they do not have an emission standard/limitation they are required to comply with and the engines are not equipped with a control device.

#### **EMERGENCY ENGINE EMISSIONS**

The facility has requested to limit each emergency engines' operating hours to 2,190 hours of operation per year for the worst case operating scenario.

SOURCE ID	EMERGENCY ENGINES EXPECTED EMISSIONS (TPY)						
	PM 2.5/10	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	TOTAL HAP	CO <sub>2</sub> e
<b>FIRE WATER (P-903A)</b>	0.64	0.00297	9.00	1.94	0.73	0.02	333.12
<b>FIRE WATER (P-903B)</b>	0.64	0.00297	9.00	1.94	0.73	0.02	333.12
<b>DIESEL BLACK START</b>	0.92	0.0045	12.90	2.78	1.03	0.034	477.68
<b>TOTAL EMERGENCY ENGINE EMISSIONS</b>	<b>2.200</b>	<b>0.010</b>	<b>30.900</b>	<b>6.660</b>	<b>2.490</b>	<b>0.074</b>	<b>1,143.920</b>

## GENERATOR ENGINE REQUIREMENTS

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(G-1) (G-2) (G-3) (G-4) (G-5) (G-6) (G-7) (G-8) (G-9) (G-10)	(10) 5,800 BHP, Wartsilla, 18V28SG, 4SLB, Natural Gas, Generator Engines with selective catalytic oxidation (SCO)	CO	<= 8.50 Lbs/Hour	Rule 335-3-14-.04 Anti-PSD Limit
		NO <sub>x</sub>	<= 8.50 Lbs/Hour	Rule 335-3-14-.04 Anti-PSD Limit
		VOC	<= 4.29 Lbs/Hour	Rule 335-3-14-.04 Anti-PSD Limit
		Opacity	No more than one 6 min avg. > 20% AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(a)  Rule 335-3-4-.01(1)(b)
	Cumulative Emissions for All Generator Engines	CO	<= 150 Tons/12 Months	Rule 335-3-14-.04 Anti-PSD Limit
		NO <sub>x</sub>	<= 150 Tons/12 Months	Rule 335-3-14-.04 Anti-PSD Limit

The generator engines' applicability to state and federal regulations will be discussed in the following section.

### STATE REGULATIONS

#### Applicability:

ADEM Admin. Code R. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

The generator engines would be subject to this regulation; however, since natural gas is burned as fuel in the engines the actual PM emissions should be negligible. Therefore, no monitoring would be required. Provided that visible emissions are observed from the engines, Method 9 of 40 CFR 60 Subpart A shall be utilized to determine opacity from these units.

#### Applicability:

ADEM Admin. Code R. 335-3-14-.04 "*Prevention of Significant Deterioration (PSD) Permitting*"

This facility has a 250 TPY major source threshold for PSD. When the generator engines were permitted, the facility elected to place pound per hour (Lbs/Hour) limits on each of the engines for nitrogen oxide (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compound (VOC) emissions and they also placed a yearly cap for NO<sub>x</sub> and CO emissions for all generator engines in order to avoid a PSD review.

### EMISSION STANDARDS

The emission standards for the generator engines are found on the summary page above.

### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

The following methods and procedures shall be utilized to determine emissions from the generator engines:

- Performance testing on the engines shall be conducted utilizing the following methods and procedures:
  - To determine NO<sub>x</sub> Emissions one of the following methods shall be used: 40 CFR 60, Appendix A, Methods 7, 7 A, 7B, 7C, 7E or other methodology approved by the Department.
  - To determine CO Emissions one of the following methods shall be used: 40 CFR 60, Appendix A, Methods 10, 10 A, 10B or other methodology approved by the Department.
  - To determine VOC Emissions one of the following methods shall be used: 40 CFR 60, Appendix A, Methods 18, 25, 25A, 25B, 25C, 25D, 25EE or other methodology approved by the Department.
- Periodic testing on the engines shall be conducted utilizing EPA's "Conditional Test Method (CTM-034)" and 40 CFR Part 60 Appendix A, Method 19 or other methods approved by the Department.
- The fuel gas burned in the engines shall be tested for its BTU heat content by utilizing the ASTM Analysis Method D1826-77 or an equivalent method.

### EMISSIONS MONITORING

To demonstrate that the generator engines are complying with their emission standards, performance testing is required to be conducted at least once every five years, periodic testing is required once every 12 months and the fuel gas has to be tested for its BTU content at least once each six months. The fuel gas volume for each generator engine is required to be continuously monitored.

In order to ensure that control devices on the generator engines are working efficiently the facility is required to measure the pressure drop across the catalyst bed as periodic monitoring. The pressure drop is required to be continuously monitored to measure the difference between the inlet and outlet catalyst bed pressures in inches of water.

### RECORDKEEPING AND REPORTING REQUIREMENTS

The following records shall be maintained to demonstrate compliance with the emission standards for the generator engines: deviations from permit requirements, performance and periodic test results, maintenance conducted on each catalytic converter, fuel gas heat content, fuel gas volume, heat input for each engine, operating hours and engine emissions (lbs/Hour, Lbs/Month, Tons/Month, Tons/12 consecutive Months). Also the pressure drop across the catalyst bed shall be recorded during periodic testing and performance testing.

Periodic Monitoring Reports (PMR) are required to cover a calendar semi-annual period and shall be submitted within 30 days of the end of the reporting period.

**Applicability:**

ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*" (MSOP)

The generator engines would be subject to the requirements of this regulation since they are located at a facility that is a major source. This facility is a major source for criteria pollutants, HAPs and GHGs.

**FEDERAL REGULATIONS**

**NEW SOURCE PERFORMANCE STANDARDS (NSPS)**

**Applicability:**

40 CFR 60 Subpart A, "*General Provisions*"

Provided that the generator engines are subject to one of the applicable subparts found under this part, the facility shall comply with this subpart as specified in the applicable subpart.

**Applicability:**

40 CFR 60 Subpart JJJJ, "*Standards of Performance for Spark Ignition Internal Combustion Engines*" [NSPS JJJJ]

This regulation is applicable to spark ignition (SI) stationary engines that commenced construction after June 12, 2006 and that meets the applicable manufactured date. Based on the permit application, each of the generator engines at the plant were constructed (1999 listed in the permit application) prior to the effective date for this subpart and neither has been modified or reconstructed since the effective date. Therefore, there are no requirements for the generator engines under this subpart.

**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)**

**Applicability:**

40 CFR 63, Subpart A, "*General Provisions*"

Provided that the engines are subject to one of the applicable subparts found under this part, the facility shall comply with this subpart as specified in the applicable subpart.

**Applicability:**

40 CFR 63 Subpart ZZZZ, "*National Emission Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE)*" [RICE MACT]

The generator engines were constructed at the plant prior to December 19, 2002; therefore, the engines would be existing sources located at a major source of HAPs under this subpart. Because the engines are four stroke lean burn (4SLB) engines with a horsepower greater than 500 and they are located at a major source of HAPs, they do not have to meet the requirement of this subpart, including initial notification requirements [§63.6590(b)(3)].

#### 40 CFR 64, "COMPLIANCE ASSURANCE MONITORING (CAM)"

The generator engines would be subject to the requirements of CAM since their pre-controlled emissions for CO are greater than 100 tons per year, the engines have an Anti-PSD limit for CO emissions, and a selective catalytic oxidation unit is used as a control device to comply with the emission limit.

#### EMISSION STANDARDS

Each generator engine is required be equipped with a selective catalytic oxidation unit to reduce CO emissions from the engine. In order to ensure proper operation of the catalytic convert, the inlet temperature of the catalyst bed is required to be maintained at greater than or equal to 500 °F and less than or equal to 1000 °F.

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

A site specific monitoring plan for the temperature sensor must meet the specifications found in §63.6625(b)(1)(i) through (v).

#### EMISSIONS MONITORING

The catalyst bed is required to be monitored with a system capable of continuously measuring the inlet temperature. Each temperature sensor on the unit is required to be evaluated at least annually.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

An excess emissions report is required to include any deviations from the required inlet temperatures, it shall cover a calendar semi-annual period and it shall be submitted within 30 days of the end of the reporting period. Provided that deviation events occur for greater than 5% of an engine's operating time during a quarterly reporting period, the facility is required to develop and implement a Quality Improvement Plan (QIP).

#### **GENERATOR ENGINE EMISSIONS**

Engines are equipped with selective catalytic oxidation (SCO) units that reduce CO emissions and hydrocarbon emissions.

GENERATOR ENGINES EXPECTED EMISSIONS (TPY)							
SOURCE ID	PM <sub>2.5/10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	TOTAL HAP	CO <sub>2</sub> e
G-1	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
G-2	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
G-3	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
G-4	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
G-5	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
G-6	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
G-7	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34

**DCP MOBILE BAY GAS TREATING & PROCESSING FACILITY**

FACILITY No.: 503-8085

STATEMENT OF BASIS

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<b>G-8</b>	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
<b>G-9</b>	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
<b>G-10</b>	1.54	0.10	37.23	37.23	18.79	8.15	18,079.34
<b>TOTAL GENERATOR ENGINE EMISSIONS</b>	15.4	1.00	372.3	372.3	187.9	81.5	180,793.4
<b>CUMULATIVE ALLOWABLE</b>	-	-	<b>150</b>	<b>150</b>	-	-	-

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## NATURAL GAS LIQUID (NGL) TREATING UNIT REQUIREMENTS

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(TO-1)	Amine treating Unit & 22.04 MMBtu/hr Thermal Oxidizer	SO <sub>2</sub>	27.90 Lbs/Hr	Rule 335-3-14-.04 Anti-PSD Limit
		H <sub>2</sub> S	Less than 2 LT/D of H <sub>2</sub> S in acid gas	§60.640(b) 40 CFR 60, Subpart LLL
			Burn gas with 0.10 grains or more of H <sub>2</sub> S/Scf of gas	Rule 335-3-5-.03(1)
			AND <20 ppbv offsite concentration	Rule 335-3-5-.03(2)
		Opacity	No more than one 6 min avg. > 20%	Rule 335-3-4-.01(1)(a)
			AND No 6 min avg. > 40%	Rule 335-3-4-.01(1)(b)

The NGL treatment unit's applicability to the state and federal regulations will be discussed in the following section.

### STATE REGULATIONS

#### **Applicability:**

ADEM Admin. Code R. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

The thermal oxidizer would be subject to the requirements of these regulations.

#### EMISSION STANDARDS

ADEM Admin. Code R. 335-3-4-.01(1) (a) states that except for one 6-minute period during any 60-minute periods, stationary emission sources shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average.

ADEM Admin. Code R. 335-3-4-.01(1) (b) states that at no time shall a stationary emission source discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a six minute average.

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Method 9 or Method 22 found in 40 CFR 60, Appendix A would be used to demonstrate compliance with the opacity standards. When Method 22 is used to determine the duration of emissions, the method has to be conducted by an individual who is familiar with the procedures. When Method 9 is used to determine opacity, it has to be conducted by an individual who is certified to use this procedure. Visual inspections and visible emissions observations are both required to be conducted during daylight hours.

#### EMISSIONS MONITORING

Provided that visible emissions are observed from the thermal oxidizer in excess of the opacity standards, a visible emission observation shall be conducted.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of each occurrence when a visible emissions observation was conducted should be recorded and maintained. A deviation should be reported to the Department within 48 hours or 2 working days when a visible emissions event occurs.

#### **Applicability:**

ADEM Admin. Code R. 335-3-5-.03 (1), (2), and (3) "*Petroleum Production*"

The Mobile Bay Plant handles sour gas that contains 0.10 grains of hydrogen sulfide (H<sub>2</sub>S) per standard cubic feet (Scf) of gas or more at the facility. Therefore, the thermal oxidizer would be used to comply with this regulation.

ADEM Admin. Code R. 335-3-5-.03 (3) would be applicable to the Mobile Bay Plant; however, the facility has an Anti-PSD sulfur dioxide (SO<sub>2</sub>) emission limit for the thermal oxidizer which is more stringent than the emission limitation in this chapter. Compliance with the Anti-PSD emission limit would demonstrate compliance with this subpart.

#### EMISSIONS STANDARDS

The thermal oxidizer is required to burn acid gas in order to maintain the ground level concentrations of hydrogen sulfide (H<sub>2</sub>S) at less than twenty part per billion beyond the plant property limits, average over a thirty (30) minute period. Venting to atmosphere shall not exceed 15 continuous minutes while vessels or equipment are being depressured and/or emptied and the reduced pressure will not allow flow of the process gas to the combustion device.

#### EMISSIONS MONITORING

Compliance is met by burning or recycling to the process all acid gas that can be vented to atmosphere. Since the thermal oxidizer is subject to CAM, the monitoring plan under CAM which requires the facility to maintain a minimum firebox temperature will also be used to demonstrate compliance with the requirement to burn.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of events when a process gas stream was not burned in the facility flare or thermal oxidizer or when venting occurred for greater than 15 minutes shall be maintained.

**Applicability:**

ADEM Admin. Code R. 335-3-14-.04 "*Prevention of Significant Deterioration (PSD) Permitting*"

Under ADEM Admin. Code R. 335-3-5-.03 (3), SO<sub>2</sub> emissions from the plant would be unlimited since the facility would process less than 5 LTD of available sulfur. However, the facility requested to place an Anti-PSD limit on the thermal oxidizer in order to maintain facility-wide SO<sub>2</sub> emissions below the PSD threshold of 250 tons per year (TPY).

EMISSIONS STANDARDS

SO<sub>2</sub> emissions from the thermal oxidizer shall not exceed 27.90 pounds per hour (Lbs/hr).

COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Performance testing and periodic sampling for the sulfur content of the NGL is required in order to demonstrate compliance with the Ant-PSD SO<sub>2</sub> emission limit.

The following methods shall be used to conduct performance testing on the thermal oxidizer:

- 40 CFR Part 60 Appendix A, Method 1 or 1A
- 40 CFR Part 60 Appendix A, Method 2 or 2A or 2B or 2C or 2D or 2E
- 40 CFR Part 60 Appendix A, Method 3 or 3A or 3B or 3C
- 40 CFR Part 60 Appendix A, Method 4
- 40 CFR Part 60 Appendix A, Method 6 or 6A or 6B or 6C

Periodic sampling shall be conducted utilizing chromatographic analysis procedures acceptable to the Department or other EPA approved methods.

EMISSIONS MONITORING

Performance testing to determine SO<sub>2</sub> emissions from the thermal oxidizer shall be conducted at least once every twelve (12) months, unless the unit does not operating for 500 hours or more during the 12 month period. Periodic sampling to determine the sulfur content of the NGL entering and leaving the amine unit's contact tower shall be performed at a maximum interval not to exceed six months.

RECORDKEEPING AND REPORTING REQUIREMENTS

To determine SO<sub>2</sub> emissions the following records are required to be maintained: NGL Unit operating hours, thermal oxidizer operating hours, NGL production or sales rate, total sulfur mass fractions, and the NGL density. A semi-annual periodic monitoring report (PMR) is required to be submitted to the Department.

## FEDERAL REGULATIONS

### NEW SOURCE PERFORMANCE STANDARDS (NSPS)

#### **Applicability:**

40 CFR 60 Subpart LLL, “Standards of Performance for Onshore Natural Gas Processing: SO<sub>2</sub> emissions”

The process unit at the plant is designed to remove carbon dioxide (CO<sub>2</sub>), carbonyl sulfide (COS) and H<sub>2</sub>S from natural gas liquids (NGL), instead of from natural gas. By definition a sweetening unit under this subpart would be a process device that separates the H<sub>2</sub>S and CO<sub>2</sub> content from sour natural gas. Since NGLs are treated instead of sour gas, it could be argued that the process unit used to sweeten the NGLs does not meet the definition of a sweetening unit under this subpart. However, the facility elected to be conservative and would like to consider the process unit a sweetening unit as defined in this subpart. This request was made in a letter to the Department requesting an administrative permit amendment on December 17, 2009. The facility accepted applicability to this subpart.

DCP has indicated that the design capacity for the plant is less than 2 LT/D of H<sub>2</sub>S in the acid gas (expressed as sulfur); therefore, the facility would not be subject to the control requirements under this subpart. The plant will have to maintain, for the life of the facility, an analysis demonstrating that the facility's design capacity is less than 2 LT/D of H<sub>2</sub>S expressed as sulfur [§60.647(c)].

#### **Applicability:**

#### **40 CFR 64, “COMPLIANCE ASSURANCE MONITORING” (CAM)**

The NGL Treating Unit would be subject to CAM. The requirement to burn off gases is considered to be a work practice and not an emission limitation. As defined in the CAM regulation, an emission limitation may be expressed in the form of a work practice, process parameter, or other form of specific design. Thus CAM is applicable and shall be utilized to insure compliance with the requirement to burn the off gases. The thermal oxidizer is utilized as control devices to burn gas containing greater than 0.10 grains of H<sub>2</sub>S/Scf.

#### EMISSION STANDARDS

The thermal oxidizer firebox temperature shall be maintained at greater than or equal to the temperature established during the latest performance test that showed compliance.

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Each temperature sensor shall be maintained and calibrated as required by manufacturer's specifications or other written procedures.

#### EMISSIONS MONITORING

The firebox temperature shall be continuously monitored with a thermocouple or equivalent device. Calibrations of the temperature sensor shall occur annually or as required by manufacturer's specifications, whichever is more frequent.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of the time, date and results of each occurrence when the firebox temperature was not maintained above its allowable, results of each calibration, and any deviations and corrective actions taken shall be maintained. If the accumulated hours of deviation events occurring exceed 5% of the thermal oxidizer's operating time during any quarterly reporting period, a Quality Improvement Plan (QIP) shall be developed and implemented.

#### **NGL TREATING UNIT EMISSIONS**

THERMAL OXIDIZER EXPECTED EMISSIONS (TPY)						
PM <sub>2.5/10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	TOTAL HAP	CO <sub>2e</sub>
0.77	122.11	10.12	8.50	0.95	0.00	11,304.07

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## FLARE REQUIREMENTS

This plant is equipped with two flare. The continuous process flare (FL-1) is used during process gas upset emergencies and to continuously control vapors from the amine flash tank vent. The emergency acid gas flare (AGFL-1) is a secondary control device used when the thermal oxidizer is not available.

EMISSION POINT	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
(FL-1)	Continuous Process Flare	VOC	Less than or equal to 11.82 Lbs/hr	335-3-14-.04 [Anti-PSD Limit]
(AGFL-1)	Emergency Acid Gas Flare	VOC	Less than or equal to 2.70 Lbs/hr	335-3-14-.04 [Anti-PSD Limit]
			AND	
			0.242 Tons/12 consecutive months	335-3-14-.04 [Anti-PSD Limit]
		Sulfur	Less than or equal to 60 hours of high sulfur gas flared during a calendar quarter	335-3-14-.04 [Anti-PSD Limit]
All Facility Flares		SO <sub>2</sub>	<245 TPY	335-3-14-.04 [Anti-PSD Limit]
		H <sub>2</sub> S	Burn gas with 0.10 grains or more of H <sub>2</sub> S/Scf of gas and <20 ppbv offsite concentration	Rule 335-3-5-.03(1)  Rule 335-3-5-.03(2)
		Opacity	No visible emissions, except for 5 minutes in a 2 consecutive hour period	§60.18(c)(1) §60.633 (g) [NSPS KKK] §63.11(b)(4) §63.769(c)(8) [NESHAP HH]

The flares' applicability to the state and federal regulations will be discussed in the following section.

## STATE REGULATIONS

### Applicability:

ADEM Admin. Code R. 335-3-4-.01(1)(a) and (b), "*Visible Emissions*" for Control of Particulate Emissions

These regulations would not be subject to the facility flare because it is subject to the more stringent opacity standards found in §60.18 and §63.11.

### Applicability:

ADEM Admin. Code R. 335-3-5-.03 (1), (2), and (3) "*Petroleum Production*"

The Mobile Bay Plant handles sour gas that contains 0.10 grains of hydrogen sulfide per standard cubic feet (H<sub>2</sub>S/scf) of gas or more. The flares and thermal oxidizer are used to comply with this regulation.

### EMISSIONS STANDARDS

The flares are required to burn sour gas in order to maintain the ground level concentrations of hydrogen sulfide (H<sub>2</sub>S) at less than twenty part per billion beyond the plant property limits, average over a thirty (30) minute period. Venting to atmosphere shall not exceed 15 continuous minutes while vessels or equipment are being depressured and/or emptied and the reduced pressure will not allow flow of the process gas to the combustion device.

According to ADEM Admin. Code R. 335-3-5-.03(3), provided that the available sulfur being processed at the plant is less than five (5) long tons per day (LTD), there is no limit on SO<sub>2</sub> emissions. The Mobile Bay Plant has a sulfur production of less than 2 LTD. However, the facility has elected to be a minor source with PSD regulations; therefore, SO<sub>2</sub> emissions from the facility shall not exceed 245 TPY.

### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Each process gas stream that can be routed to a flare shall be tested for its BTU content (Btu/Scf) utilizing one for the following methods and procedures: the chromatographic analysis procedures in 40 CFR Part 60 Appendix A, Method 18, Method 25A, or equivalent methods and procedures to determine the heat content of the gas stream. It should also be tested for its H<sub>2</sub>S content (mol%) utilizing one for the following methods and procedures: Tutwiler procedures found in 40 CFR §60.648 or the chromatographic analysis procedures found in ASTM E-260 or the stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacture.

### EMISSIONS MONITORING

Compliance is met by burning or recycling to the process all process gas that can be vented to atmosphere. Periodic monitoring to ensure that the offsite H<sub>2</sub>S concentration does not exceed 20 ppbv, is in the form of maintaining an acid gas to assist gas volume ratio at equal to or greater than 1.0 to 0.5, minimizing the flaring of high sulfur gas to less than 60 hours per calendar quarter, maintaining a spark or flame at the flare tip. Both the acid gas to assist gas and the hourly operational limit were established due to an increase in the facility sweetening capacity after the shutdown of Exxon's Mary Ann/823 Gas Plant (see September 13, 2010 Engineering Analysis).



#### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of events when a process gas stream was not burned in the facility flares or, when venting occurred for greater than 15 minutes, and records of the acid gas to assist gas volume shall be maintained.

#### **Applicability:**

ADEM Admin. Code R. 335-3-14-.04 "*Prevention of Significant Deterioration (PSD) Permitting*"

Both the FL-1 and AGFL-1 flares have VOC emission limits in place in order to avoid a PSD review under this subpart. The FL-1 flare's current Anti-PSD VOC emission limit was established as a result of the facility changing its amine solution from MDEA to DGA which affected the composition of the amine flash gas which is directed to this flare (see August 20, 2010 correspondence). The VOC limit increased; however, this project did not result in an increase of VOC emission above 250 TPY. During this same process change, acid gas flaring hours from the AGFL-1 was limited to 60 hours per calendar quarter to minimize SO<sub>2</sub> emissions and Anti-PSD emission limits were placed on this AGFL-1 flare in order to maintain VOC emissions below 2.70 Lb/hr and 0.242 tons per 12 consecutive months (see April 13, 2017 correspondence to see how VOC limits were determined).

The facility has elected to maintain its status as a minor source for PSD regulations by staying below its 250 TPY threshold for this type of facility. SO<sub>2</sub> emissions are unlimited for the flare and they are limited to 27.90 Lbs/hr for the thermal oxidizer; however, in order to avoid a PSD review, facility-wide SO<sub>2</sub> emissions from all emission sources shall be limited to 245 TPY.

#### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Each flares' VOC content shall be sampled annually using chromatographic analysis procedures in 40 CFR Part 60 Appendix A, Method 18, Method 25A, or equivalent methods and procedures.

#### EMISSIONS MONITORING

The flared gas volume shall be monitored with a system capable of measuring and recording the flowrate and/or parameters utilized for flow rate calculations.

#### RECORDKEEPING AND REPORTING REQUIREMENTS

Records of the date, time, and duration of each acid gas flaring events and records of annual sampling of the fuel gas for its VOC content shall be maintained. Deviations shall be included in the semi-annual Periodic Monitoring Report (PMR) which is due to the Department within 30 days of the end of the reporting period.

#### **FEDERAL REGULATIONS**

#### **Applicability:**

**40 CFR §60.18 & 40 CFR §63.11(B)**

The facility flares are subject to the requirements of these subparts because the flares are used to control HAPs and VOC equipment leaks from affected sources subject to 40 CFR 60 Subpart KKK and 40 CFR 63 Subpart HH.

### EMISSION STANDARDS

The flares are required to comply with the following emission standards:

- Must be operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours
- Must be operated with a flame present at all times
- Must adhere to the heat content specifications found in §60.18 (c)(3)(ii) and §63.11(b)(6)(ii) AND the maximum tip velocity specifications in §60.18 (c)(4) or (c)(5) and §63.11(b)(7) or (b)(8) OR they must adhere to the requirements specified in §60.18 (c)(3)(i) and §63.11(b)(6)(i)
- Must be monitored to ensure that they are operated and maintained in conformance with their designs
- Must be operated at all times when emissions may be vented to them

### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Opacity monitoring shall utilize EPA Test Method 22.

### EMISSIONS MONITORING

The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. Compliance with the visible emission standards for the flares shall be met by conducting a daily visual inspections on each flare and by conducting visible emission observations when necessary for each flare as specified in the opacity monitoring section of the existing permit.

### RECORDKEEPING AND REPORTING REQUIREMENTS

The following records are required to be maintained for each flare.

- Records of all periods of operation during which the flare pilot flame is absent
- Records of the flare design
- All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations
- Dates of startup and shutdowns of the closed vent system and control device

Semi-annual reports of all periods in which the pilot flame was absent shall be submitted to the Department within 30 days of the end of the reporting period.

### **Applicability:**

### **40 CFR 64, “COMPLIANCE ASSURANCE MONITORING” (CAM)**

The requirement to burn off gases is considered to be a work practice and not an emission limitation. As defined in the CAM regulation, an emission limitation may be expressed in the form of a work practice, process parameter, or other form of specific design. Thus CAM is applicable and shall be utilized to insure compliance with the requirement to burn the off gases. The flares at the facility are utilized as control devices to burn gas containing greater than 0.10 grains of H<sub>2</sub>S/Scf.

### EMISSION STANDARDS

Presence of a spark or flame at the flare tip shall be maintained at all times when a process gas stream can be routed to either of the flares.

### COMPLIANCE AND PERFORMANCE TEST METHODS AND PROCEDURES

Provided a flame igniter or flame monitor is used each shall be maintained and calibrated as required by manufacturer's specifications or other written procedures.

### EMISSIONS MONITORING

The flare tip shall either be equipped with a continuous sparking flame igniter that is monitored by an amp meter or an equivalent device, be equipped with a thermocouple or equivalent device to monitor a continuously burning pilot light, or monitored by visual observation. Calibrations of a flare monitor or flame igniter shall occur annually or as required by manufacturer's specifications, whichever is more frequent.

### RECORDKEEPING AND REPORTING REQUIREMENTS

A record of the time, date and results of each occurrence when there was not a spark or flame present at the flare tip when a process gas stream could be routed to it, each daily visual inspection, results of each visual observation (if required), results of each calibration, and any deviations and corrective actions taken. If the accumulated hours of deviation events occurring exceed 5% of the flares' operating time during any quarterly reporting period, a Quality Improvement Plan (QIP) shall be developed and implemented.

### **FLARE EMISSIONS**

<b>FLARE EXPECTED EMISSIONS (TPY)</b>							
<b>SOURCE ID</b>	<b>PM<sub>2.5/10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>	<b>TOTAL HAP</b>	<b>CO<sub>2e</sub></b>
<b>FL-1</b>	0.88	0.09	7.84	42.62	51.77	0.00	13,489.94
<b>AFGFL-1</b>	0.10	2.09	0.37	2.02	0.35	0.03	11,945.06
<b>TOTAL FLARE EMISSIONS</b>	<b>0.98</b>	<b>2.18</b>	<b>8.21</b>	<b>44.64</b>	<b>52.12</b>	<b>0.03</b>	<b>25,435</b>

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## **STORAGE VESSEL REQUIREMENTS**

EMISSION POINT #	DESCRIPTION	POLLUTANT	EMISSION LIMIT	REGULATIONS
T-1	16,800 Gallon, Condensate Storage Tank	H <sub>2</sub> S	Burn gas with 0.10 grains or more of H <sub>2</sub> S/Scf of gas	Rule 335-3-5-.03(1)
T-2	16,800 Gallon, Condensate Storage Tank			
T-3	16,800 Gallon, Condensate Storage Tank			
T-4	16,800 Gallon, Condensate Storage Tank			
T-5	16,800 Gallon, Condensate Storage Tank		AND	Rule 335-3-5-.03(2)
T-6	16,800 Gallon, Condensate Storage Tank		<20 ppbv offsite concentration	

The tanks' applicability to the state and federal regulations will be discussed in the following section.

### **STATE REGULATIONS**

#### **Applicability:**

ADEM Admin. Code R. 335-3-5-.03 (1) and (2) "*Petroleum Production*"

The condensate stored in the tanks listed above would be stabilized prior to storage thereby removing any H<sub>2</sub>S which may have been present in the tank vapors. The vapors from these tanks will be vented to atmosphere without having to be burned. Therefore, these tanks would not be subject to the requirements of this subpart.

#### **Applicability:**

ADEM Admin. Code R. 335-3-6 "Control of Organic Emissions"

This chapter does not apply to sources that have a potential VOC emission rate of less than 100 tons per year [Rule 335-6-.01(1)(b)]. The storage tanks at this facility would not be subject to the requirements of this chapter since the VOC emissions from each tank would not exceed 100 tons per year.

#### **Applicability:**

ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits"

The storage vessels would be subject to the requirements of this subpart since they are located at a major source.

## FEDERAL REGULATIONS

### NEW SOURCE PERFORMANCE STANDARDS (NSPS)

#### Applicability:

40 CFR 60 Subpart A, "General Provisions"

Provided that affected sources located at the plant are subject to one of the applicable subparts found under this part, the facility shall comply with this subpart as specified in the applicable subpart.

#### Applicability:

40 CFR Part 60 Subpart Kb, "NSPS for Storage Vessels from Petroleum Liquids"

NSPS Kb applies to all volatile organic liquid (VOL) storage vessels with a capacity greater than or equal to 75 m<sup>3</sup> (19,812.9 gallons) and constructed, reconstructed, or modified after July 23, 1984. Each of the 16,800 gallon condensate storage vessels were constructed after the effective date for this subpart and they have not been reconstructed or modified; however, they do not meet the design capacity requirements under this subpart. Therefore, they are not subject to this subpart.

#### Applicability:

**40 CFR 64, "COMPLIANCE ASSURANCE MONITORING" (CAM)**

The storage vessels would not be subject to this subpart since they are not equipped with a control device.

### STORAGE VESSELS EMISSIONS

STORAGE VESSELS EXPECTED EMISSIONS (TPY)	
SOURCE ID	VOC
T-1	3.97
T-2	3.97
T-3	3.97
T-4	3.97
T-5	3.97
T-6	3.97
Total Tanks	23.82

## **RECOMMENDATIONS**

After reviewing state and federal regulations for newly promulgated and modified regulations, I recommend that DCP Operating Company, LP is issued a renewal for its Mobile Bay Gas Treating and Processing Facility operating under Major Source Operating Permit (MSOP) No.: 503-8085. The facility addressed its applicability to new and modified regulations and should be able to meet the requirements of this permit and all federal and state requirements.

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Harlotte Bolden-Wright  
Air Division  
Energy Branch  
Industrial Minerals Section

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May 26, 2017  
Draft Date